

CLAIMS

What is claimed is:

1. An apparatus for locking a tray of a disc drive, comprising:
a motor driven to move the tray into or out of the disc drive;
a power supply unit to supply a power supply to the motor; and
a control unit to control the power supply unit to cut off the power supply supplied to the motor, if a tray-locking command is input.
2. The apparatus of claim 1, further comprising:
a memory which is controlled by the control unit if the power supply of the disc drive is requested to be turned off and which stores information to represent a tray-locking state.
3. The apparatus of claim 2, wherein if a turn-on related signal of the power supply is input in a state when the power supply of the disc drive is turned off, the control unit determines whether a tray-locking mode is set depending on whether the information representing the tray-locking state is stored in the memory.
4. The apparatus of claim 3, wherein when the power supply of the disc drive is controlled by the turn-on related signal of the power supply, if the information to represent the tray-locking state is stored in the memory, the control unit controls the power supply unit to maintain a state where the power supply is not supplied to the motor.
5. The apparatus of claim 3, further comprising:
a display unit which is controlled by the control unit to display the information representing the tray-locking state.
6. The apparatus of claim 1, further comprising a display unit which is controlled by the control unit to display information representing the tray-locking state.

7. The apparatus of claim 1, wherein when the tray-locking command is input, if the tray is opened, the control unit controls the motor to move the tray into the disc drive and to cut off the power supply supplied to motor.

8. A method of locking a tray for a disc drive, comprising:
receiving a tray-locking request; and
cutting off a power supply supplied to a motor driven to move the tray into or out of the disc drive, if the tray-locking request is received.

9. The method of claim 8, further comprising:
checking whether the tray is open if the tray-locking request is received;
driving the motor to close the tray if the tray is open, and cutting off the power supply; and
cutting off the power supply if the tray is closed.

10. The method of claim 8, further comprising:
storing information representing a tray-locking state, if the power supply of the disc drive is requested to be turned off; and
turning off the power supply of the disc drive.

11. The method of claim 10, further comprising:
supplying the power supply to components of the disc drive except for the motor, if a turn-on related signal of the power supply of the disc drive is input in a state where the power supply of the disc drive is turned off;
checking whether a tray-locking mode is set; and
maintaining a state where the power supply is not supplied to the motor if the tray-locking mode is set.

12. The method of claim 11, further comprising:
displaying information representing the tray-locking state if the tray-locking mode is set.

13. The method of claim 8, further comprising:
displaying information representing a tray-locking state if a tray-locking mode is set.

14. The method of claim 11, further comprising:
supplying the power supply to the motor if the tray-locking mode is not set.

15. An apparatus for locking a tray of a disc drive, and including a motor to move the tray into or out of the disc drive and a power supply unit to power the motor, comprising:
a control unit to control the power supply unit to stop the motor, if a tray-locking command is input.

16. The apparatus of claim 15, wherein the control unit prevents the power supply unit from supplying power to the motor to stop the motor when the tray-locking command is input.

17. The apparatus of claim 15, further comprising:
a memory to store information representing a tray-locking state and communicating with the control unit if a request to be turned off the power supply unit is received by the control unit.

18. The apparatus of claim 17, wherein the memory is a nonvolatile memory.

19. The apparatus of claim 17, wherein the control unit determines whether a tray-locking mode is set according to whether information representing the tray-locking state is stored in the memory.

20. The apparatus of claim 19, wherein the control unit determines whether a tray-locking mode is set, if a turn-on related signal is input when the disc drive is turned off,

21. The apparatus of claim 20, wherein the control unit controls the power supply unit to maintain a state where the power supply is not supplied to the motor when the turn-on related signal controls the power supply unit and the tray-locking state information is stored in the memory.

22. The apparatus of claim 21, further comprising:
a display unit to display the tray-locking state information.

23. The apparatus of claim 15, wherein when the tray-locking command is input and the tray is in an open position, the control unit controls the motor to move the tray into the disc drive and, after moving tray into the disc drive, to cut off the power supply supplied to motor.

24. The apparatus of claim 15, further comprising:
a command input unit to input at least a tray-locking request, a request to turn on/off a power supply, a reproduction request of the disc drive and a tray opening/closure command.

25. The apparatus of claim 24, wherein the command input unit comprises:
one or more keys and/or buttons exclusively used to input the tray-locking request, the request to turn on/off the power supply, the reproduction request of the disc drive, and the tray opening/closure command, respectively.

26. The apparatus of claim 15, wherein if a signal is input requesting a reproduction of the disc drive, the power is supplied to all components included in the disc drive except for the motor, whether the locking mode is set is determined, and a reproduction mode on a disc loaded in the disc drive is performed and power is supplied or is not supplied to the motor according to a determined result.

27. A method of locking a tray for a disc drive, comprising:
receiving a tray-locking request; and
cutting off a supply of power to a motor to prevent a movement of the tray into or out of the disc drive, after the tray-locking request is received.

28. The method of claim 27, further comprising:
 - determining whether the tray is in an open position after the tray-locking request is received;
 - driving the motor to move the tray into a closed position if the tray is in the open position and cutting off the power supply; and
 - cutting off the power supply if the tray is closed.
29. The method of claim 27, further comprising:
 - storing information of a tray-locking state, if the power supply of the disc drive is requested to be turned off; and
 - turning off the power supply of the disc drive while maintaining the storage of the track-locking state information.
30. The method of claim 27, further comprising:
 - supplying the power to components of the disc drive except for the motor, if a turn-on related signal is input in a state when the power supply is turned off;
 - determining whether a tray-locking mode is set; and
 - preventing the power supply from supplying the power to the motor if the tray-locking mode is set.
31. The method of claim 30, further comprising:
 - displaying information of a tray-locking state if the tray-locking mode is set.
32. The method of claim 30, further comprising:
 - supplying the power to the motor if the tray-locking mode is not set.
33. The method of claim 27, further comprising:
 - if a signal is input requesting a reproduction of the disc drive, supplying power to all components included in the disc drive except for the motor;
 - determining whether the locking mode is set; and

performing a reproduction mode on a disc loaded in the disc drive and supplying the power or preventing the supplying of the power to the motor according to the determining.